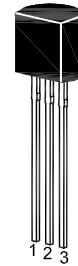


NPN Silicon Epitaxial Planar Transistor

for switching and amplifier applications. Especially suitable for AF-driver stages and low power output stages.

The transistor is subdivided into one group, according to its DC current gain.



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40	V
Collector Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1	A
Peak Collector Current	I_{CM}	1.25	A
Base Current	I_B	100	mA
Power Dissipation	P_{tot}	850	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at $V_{CE} = 1\text{ V}$, $I_C = 5\text{ mA}$	h_{FE}	45	170	-	-
at $V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$	h_{FE}	200	-	1000	-
at $V_{CE} = 1\text{ V}$, $I_C = 800\text{ mA}$	h_{FE}	40	80	-	-
Collector Base Cutoff Current at $V_{CB} = 35\text{ V}$	I_{CBO}	-	-	100	nA
Emitter Base Cutoff Current at $V_{BE} = 6\text{ V}$	I_{EBO}	-	-	100	nA
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at $I_C = 2\text{ mA}$	$V_{(BR)CEO}$	20	-	-	V
Emitter Base Breakdown Voltage at $I_E = 100\text{ }\mu\text{A}$	$V_{(BR)EBO}$	6	-	-	V
Collector Emitter Saturation Voltage at $I_C = 600\text{ mA}$, $I_B = 20\text{ mA}$	$V_{CE(sat)}$	-	-	0.55	V
Base Emitter Saturation Voltage at $I_C = 600\text{ mA}$, $I_B = 20\text{ mA}$	$V_{BE(sat)}$	-	0.98	1.2	V
Base Emitter Voltage at $I_C = 10\text{ mA}$, $V_{CE} = 1\text{ V}$	V_{BE}	-	0.66	1.0	V
Gain Bandwidth Product at $V_{CE} = 10\text{ V}$, $I_C = 50\text{ mA}$	f_T	100	-	-	MHz
Collector Base Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	-	9	pF

